

## Part Number: 638AFS



16c (#18-3pr, #16-4c, #18-6c), Shielded, CMP, Banana Peel®

### Product Description

Access Control Cable, Plenum-CMP, 3-18 AWG pairs, 4-16 AWG conductors, 4-18 AWG conductors, 2-18 AWG conductors, All conductors stranded bare copper with Flamarrest® insulation, Each cable has overall Beldfoil® shield and Flamarrest® jacket, Banana Peel® No overall jacket

### Technical Specifications

#### Product Overview

Suitable Applications:	Access Control
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#### Physical Characteristics (Overall)

##### Conductor

Element	AWG	Stranding	Material	Nominal Diameter	No. of Conductors	No. of Pairs
Door Contact	18	7x26	BC - Bare Copper	0.047 in	2	3
Rex/Spare	18	7x26	BC - Bare Copper	0.047 in	4	
Lock Power	18	7x26	BC - Bare Copper	0.047 in	4	
	16	19x30	BC - Bare Copper	0.057 in	4	

Conductor Count:	16
Total Number of Pairs:	3
Conductor Size:	18 AWG

##### Insulation

Element	Material	Material Trade Name	Nominal Diameter
18	LS PVC - Low Smoke Polyvinyl Chloride	Flamarrest®	0.064 in
16	LS PVC - Low Smoke Polyvinyl Chloride	Flamarrest®	0.064 in
	LS PVC - Low Smoke Polyvinyl Chloride	Flamarrest®	0.075 in
	LS PVC - Low Smoke Polyvinyl Chloride	Flamarrest®	0.075 in

##### Color Chart

Number	Color
Card Reader 1	Black and Red
Card Reader 2	White and Green
Card Reader 3	Orange and Brown
Rex/Spare 1	Black
Rex/Spare 2	Red
Rex/Spare 3	White
Rex/Spare 4	Green
Lock/Power 1	Black
Lock/Power 2	Red
Lock/Power 3	White
Lock/Power 4	Green
	Red
	White
	Green

##### Color Chart 4

Number	Color
Card Reader	Orange

Door Contact	White
Rex/Spare	Blue
Lock/Power	Gray

#### Inner Jacket Material

Element	Material	Material Trade Name	Nominal Diameter
Door Contact	LS PVC - Low Smoke Polyvinyl Chloride	Flamarrest®	0.286 in
Rex/Spare	LS PVC - Low Smoke Polyvinyl Chloride	Flamarrest®	0.166 in
Lock/Power	LS PVC - Low Smoke Polyvinyl Chloride	Flamarrest®	0.195 in
Door Contact	LS PVC - Low Smoke Polyvinyl Chloride	Flamarrest®	0.222 in
Rex/Spare			
Lock/Power			

#### Outer Shield Material

Type	Description	Layer	Material	Material Trade Name	Coverage [%]	Drainwire Material	Drainwire AWG	Drainwire Construction n x D
Tape	Door Contact	Card Reader (3Pr #18)	Aluminum/Polyester	Beldfoil®	100 %	TC - Tinned Copper	24	(7x32)
Tape	Rex/Spare	Lock/Power (4C #16)	Aluminum/Polyester	Beldfoil®	100 %	TC - Tinned Copper	18	(7x32)
Tape	Lock/Power		Aluminum/Polyester	Beldfoil®	100 %	TC - Tinned Copper	16	(7x32)
Tape			Aluminum/Polyester	Beldfoil®	100 %	TC - Tinned Copper	24	(7x32)

#### Outer Jacket Material

Material	Material Trade Name	Nominal Diameter	Ripcord
LS PVC - Low Smoke Polyvinyl Chloride	Flamarrest®	0.286 in	Yes
LS PVC - Low Smoke Polyvinyl Chloride	Flamarrest®	0.166 in	Yes
Unjacketed		0.195 in	
		0.222 in	
		0.542 in	

## Electrical Characteristics

#### Conductor DCR

Element	Individual Pair Nominal Shield DCR	Nominal Conductor DCR	Nominal Conductor DCR	Conductor Resistance	Nominal Outer Shield DCR
Pair	6.9 Ohm/1000ft	6.6 Ohm/1000ft	6.6 Ohm/1000ft		15.9 Ohm/1000ft
Door Contact		6.6 Ohm/1000ft	6.6 Ohm/1000ft		14.4 Ohm/1000ft
Rex/Spare		6.6 Ohm/1000ft	6.6 Ohm/1000ft		14.4 Ohm/1000ft
Lock Power		4 Ohm/1000ft	4 Ohm/1000ft		

#### Capacitance

Element	Nom. Capacitance Conductor to Conductor	Nom. Capacitance Conductor to Shield
Pair	40 pF/ft	72 pF/ft
Door Contact	70 pF/ft	126 pF/ft
Rex/Spare	42 pF/ft	76 pF/ft
Lock Power	45 pF/ft	81 pF/ft

Shielding:	Foil(s) or Copper Tape(s)
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#### Current

Element	Max. Recommended Current [A]
Card Reader	4 amps @ 25C ambient temperature
Door Contact	4 Amps @ 25C ambient temperature
Rex/Spare	4 Amps @ 25C ambient temperature
Lock Power	5 Amps @ 25C ambient temperature

#### Voltage

UL Voltage Rating
300 V RMS
300 V RMS

Electrical Characteristics Notes:	Lock Power: Per Conductor @ 25°C: 5 A
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## Mechanical Characteristics

Bulk Cable Weight:	175 lbs/1000ft
Max Recommended Pulling Tension:	428 lbs
Min Bend Radius/Minor Axis:	5 in

## Standards

NEC Articles:	800
NEC/(UL) Specification:	CMP
CEC/C(UL) Specification:	CMP
CPR Euroclass:	Eca

## Applicable Environmental and Other Programs

EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2003/96/EC (BFR):	Yes
EU Directive 2011/65/EU (ROHS II):	Yes
EU Directive 2012/19/EU (WEEE):	Yes
EU Directive 2015/863/EU:	Yes
EU Directive Compliance:	Yes
EU RoHS Compliance Date (yyyy-mm-dd):	2005-04-01
CA Prop 65 (CJ for Wire & Cable):	Yes
MII Order #39 (China RoHS):	Yes

## Suitability

Suitability - Indoor:	Yes
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## Flammability, LSOH, Toxicity Testing

UL Flammability:	NFPA 262
UL voltage rating:	300 V RMS

## Plenum/Non-Plenum

Plenum (Y/N):	Yes
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## Part Number

Non-Plenum Number:	538AFS
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## Variants

Item #	Color	Footnote
638AFS 0001000	Natural	C

Footnote:	C - CRATE REEL PUT-UP.
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